



"PoE Plus" Magnetics

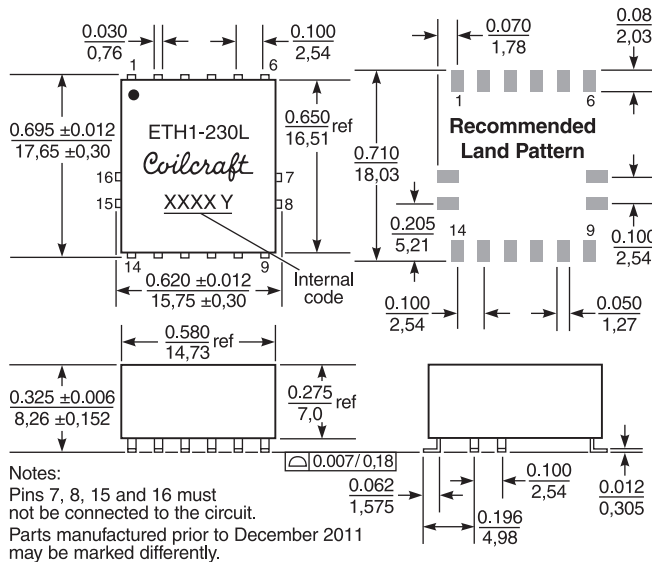
The **ETH1-230L**¹ is developed for high power PoE applications in support of the goals of the IEEE 802.3af-2009 standard. This module is designed for 2-pair cabling plants at 30 Watts and two modules may be used for 4-pair cabling in 60 Watt applications. It exceeds the return loss requirements of Gbit Ethernet.

1. When ordering, please specify **packaging** code:

ETH1-230LD

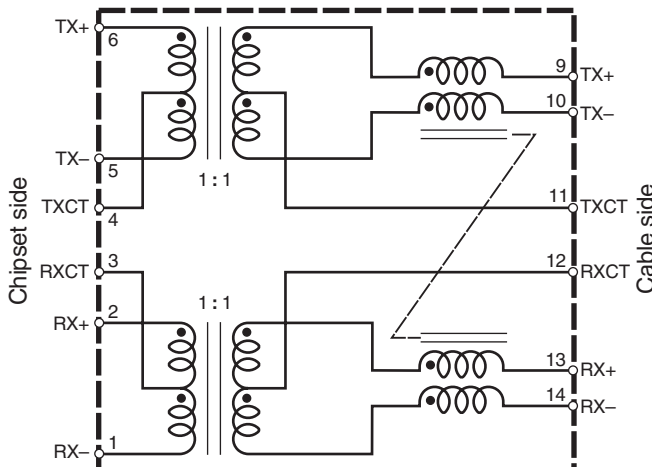
Packaging: D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (400 parts per full reel).

B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.



Weight: 3.0 g
Tape and reel: 400/13" reel 32 mm tape

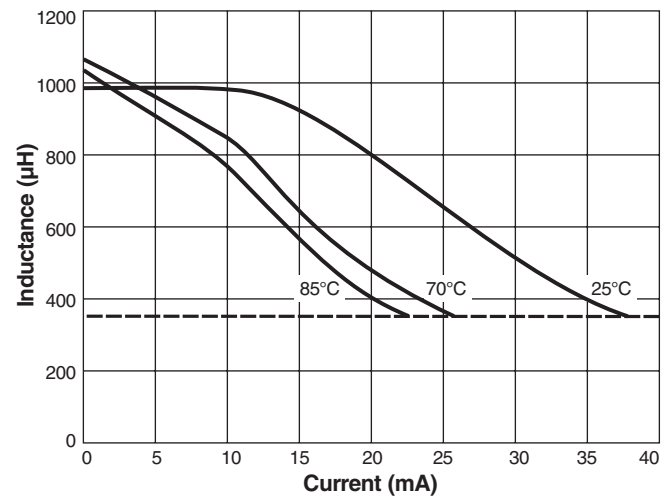
Dimensions are in inches/mm



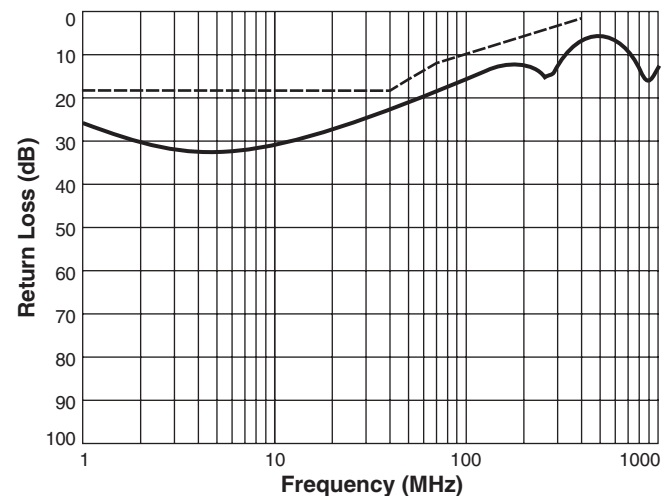
It has a minimum open-circuit inductance of 350 μ H at an offset current of 35 mA at 25°C ambient temperature, and can handle 22.5 mA minimum dc offset at 85°C. Typical temperature rise from 25°C ambient is 7°C with 800 mA and 10°C with 1000 mA dc current applied to one center tap of each isolation transformer. Winding to winding isolation is 1500 Vrms. Ambient temperature range: -40°C to +85°C with 1 A current.

Request free evaluation samples by contacting Coilcraft or visiting www.coilcraft.com.

L vs Offset Current



Return Loss



802.3af specification:
18 dB min from 1 MHz to 40 MHz
16 dB min at 50 MHz
12 dB min at 80 MHz
10 dB min at 100 MHz



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Document 538-1 Revised 11/02/11

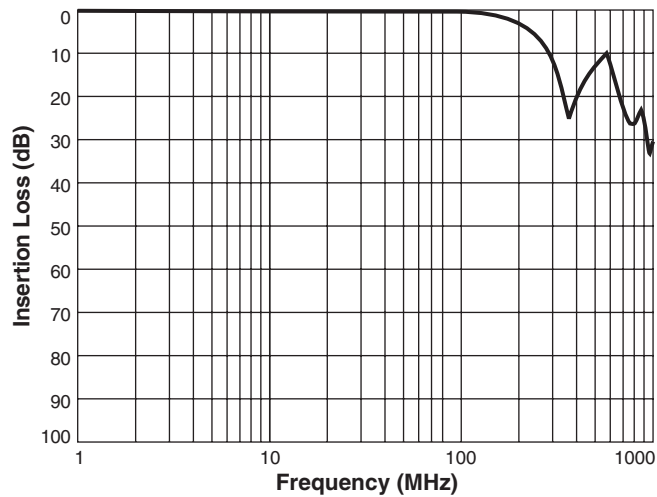
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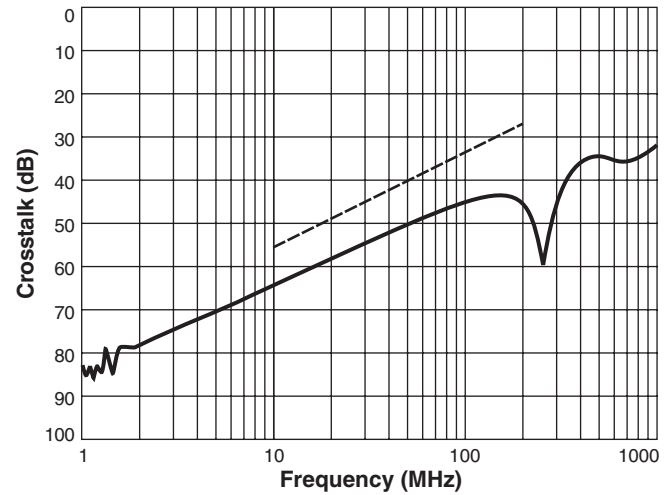
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Insertion Loss



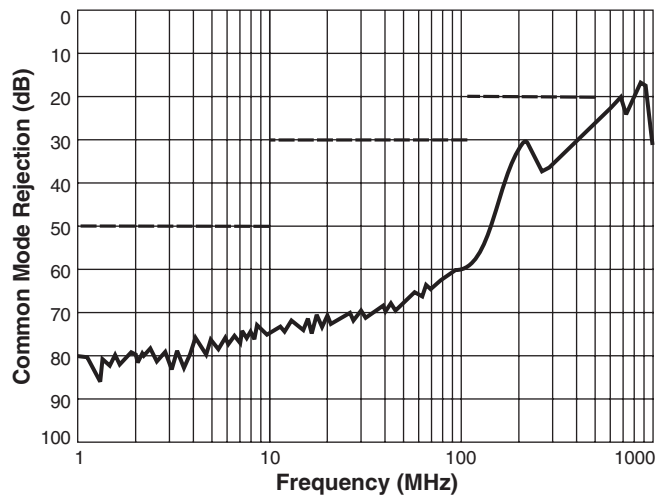
802.3af specification:
1.0 min dB from 0.1 MHz to 100 MHz
1.2 min dB at 125 MHz

Crosstalk



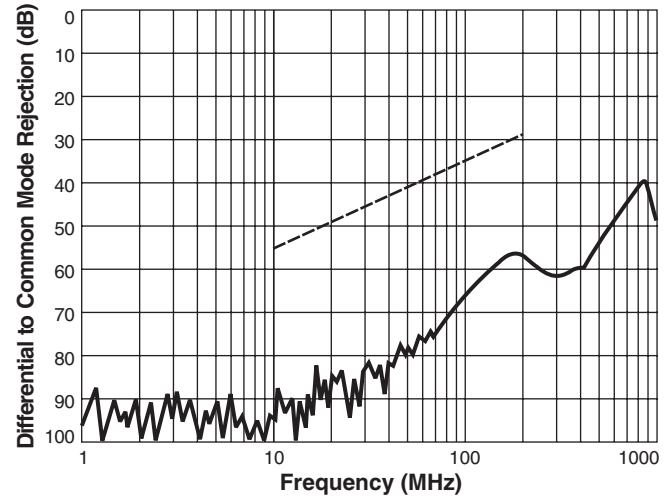
802.3af specification:
45 dB min at 30 MHz
40 dB min at 60 MHz
33 dB min at 100 MHz

Common Mode Rejection



802.3af specification:
50 dB min from 1 MHz to 10 MHz
30 dB min from 10 MHz to 125 MHz
20 dB min from 125 MHz to 500 MHz

Differential to Common Mode Rejection



802.3af specification:
45 dB min at 30 MHz
40 dB min at 60 MHz
35 dB min at 100 MHz



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Document 538-2 Revised 11/02/11

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